

MISSOURI. Conservationist

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Mentoring a New Generation

Wow, it's September already. By the time this magazine is distributed, it'll be October. What a glorious time of year! I recently celebrated my 58th birthday on Sept. 1. That particular

date brings back many fond memories of squirrel hunting on opening day in my home state of Illinois. I still remember the sleepless nights on Aug. 31. I couldn't wait to get to the woods. I know I drove my mom and dad crazy banging around in the kitchen very early on the morning of opening day. After gathering my gear and getting out the door, I'd hike around corn and bean fields and across pastures to get to "Tony's Timber." Tony was the neighboring farmer who let anyone hunt on his land. All you had to do was ask permission. Usually, I was there so early I would spend an hour or so in complete darkness listening and observing the woods wake up. To this day, I remember the first time a saw I pair of flying squirrels come home to roost in their den tree at dawn.

I have often thought of how fortunate I was to have a dad that took me on my first squirrel hunt. I still remember that day vividly. My dad was a man of few words but a great teacher. He pointed out many things in the woods that day beyond squirrel hunting. We found some fall mushrooms and feasted on wild plums. We tramped through different habitats and looked for signs from many different critters.

My Uncle Steve taught me the finer points of processing a deer, and our neighbor, Leonard, took me on my first fishing trip to the Illinois River.

Thinking back on these experiences, I have come to realize how fortunate I was to have had adults in my life that opened the wide wonders of the out of doors to me. I believe that exposure to the out of doors led me to my chosen vocation of being a forester, which I've been for the last 36 years. That, in itself, has been a great gift.

Why all the reminiscing? Our great state of Missouri has so many opportunities for old and young alike to enjoy the great outdoors. With the advent of fall, the opportunities are almost limitless. As we become a more urban society, it is important for us older folks to replace ourselves with youngsters who love the outdoors and who will be future stewards of Mis-

souri's natural treasures. Many opportunities exist to take a child on a managed youth hunt where they can experience their first waterfowl, quail or deer hunt. Other fall activities such as fishing or hiking abound here in Missouri. Our Partners such as the National Wild Turkey Federation host jakes events that teach youngsters about Missouri's wild turkey and the intrigue of hunting this wily bird. In a recent Missouri's Trapper Association magazine, *Missouri Mountain Men*, I read an article on a local trapper who spent time with a 4-H Club so those youth could learn about that important wildlife management tool. I applaud these and other partner efforts that engage youth in Missouri's hunting, fishing and trapping heritage.

As we all know, managing and sustaining natural resources is all about the balance between sustaining the resource and meeting human desires. One of my responsibilities as deputy director is to serve as chairman of the Department's Regulations Committee. Development of *Wildlife Code* regulations is one of the most important responsibilities of the Department. The challenge is to find the balance between natural resource needs and the public's desire to access and use those resources. It is a complex and interesting challenge.

As you might expect, views differ on how well the Department meets the desires of citizens. Again, it is all about finding balance. We believe recruiting youth is critically important to sustain Missouri's conservation and outdoor heritage. As I reflect about my youth, I am glad that someone took the initiative to introduce me to the great outdoors. Exploring the outdoors has been, and will continue to be, a lifelong adventure.

As we approach one of the great seasons in Missouri, pledge to engage the important youth in your life in a Missouri outdoor adventure. Who knows, one of those youngsters may be the next conservation agent, fisheries or wildlife biologist, or forester.

Thomas A. Draper, deputy director

OUR MISSION: *To protect and manage the fish, forest and wildlife resources of the state; to serve the public and facilitate their participation in resource management activities; and to provide opportunity for all citizens to use, enjoy and learn about fish, forest and wildlife resources.*



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KIDS & CREEKS

I read with interest the August article *Kids and Creeks*. It brought back many wonderful memories of how my parents, who lived in Rolla, would take my daughters to what we called the "baby creek" on the Piney River. This was always a fun and exciting time for everyone, just like you described in the article. My daughters are now 41 and 36 and still talk about catching crawdads, throwing rocks and wading in the "baby creek." Thanks for reminding us all how much fun the Missouri outdoors can be—even something as simple as a creek.

My dad was a stickler about littering. His rule, and it still applies to all my family, was "you always leave it better than you found it."

Sharon Peterkort, via Internet

NATIVE BEAUTIES

Every day this sweltering heat involves the crazed watering of flowering plants that, no matter the quantity poured on them, still wither by 10 a.m. It's become an aerobic workout just to keep them hydrated! Sweat drips off my face as I pull the hose from pot to pot, ignoring their 'cheap' colleagues, our native Missouri plants, the true botanical heroes.

Who can deny the amazing resiliency of *Passiflora incarnata*, aka passion flower, or *Eupatorium purpureum*, aka Joe-pye, or *Rudbeckia triloba*, aka brown-eyed susan. I haven't watered them yet, except by accident! Next to the over-cultivated, over-priced and over-valued wimps we buy from the nurseries and pamper like babies, these native plants are

spectacular in their productivity. Real honey bees, not those fake knock-off sweat bees, swarm these plants, sipping alongside enormous butterflies and bumblebees by the dozens, all gainfully employed in pollination. I don't see any of these insects stop by the 'store bought' flowers on their way to their jobs.

That we spend so much money, water and time on grafted and engineered specimens seems a little silly when there is an abundance of beautiful—and productive—native plants that ask nothing from us, except perhaps not to be weed-whipped.

Wendy Dyer, Chesterfield

MORE TREASURE!

I read the article on geocaching in the July issue [*Modern Day Treasure Hunting*] and want to offer my input in the event that you decide to run an article on a similar hobby, letterboxing.

Letterboxing is another type of "treasure hunt" that uses clues for directions instead of a GPS. Sometimes the clues are straightforward, while some require puzzle solving. The most important difference is that the "treasure" is an image of a hand-carved (usually) rubber stamp that often has something to do with the area in which it was found. So you end up with a book that's like a passport showing all the places you have been. Many of them are nature related, such as a series about tree species, native flowers and birds, etc.

I'm a leader in the St. Louis-area letterboxing community (and the "permit cheerleader") and was recently interviewed for an article which appeared in *Columbia Home* magazine at www.columbiahl.com/2011/06/letterboxing.

Since there is a lot of work and artistry put into letterboxes, the planters are always concerned about what is published about this hobby. Like you, we are also concerned that new letterboxers take care not to damage the area that they are in. In addition, the letterboxing community even holds events now and then, where folks can go to one park, meet other 'boxers and find lots of themed letterboxes in one day. We are hosting a stargazing themed event in Augusta this September, which will include 30-plus boxes with constellation rubber stamps.

Robin Barton, Foristell



Reader Photo FROG HOUSE

Ed Young of Joplin captured this image of a gray tree frog in one of his backyard birdhouses. MDC Herpetologist, Jeff Briggler, says it is common for this species to use birdhouses for shelter. "They like the enclosure with the hole, and will likely eat some insects in the house," said Briggler. "I have seen many gray tree frogs in bird houses with the female bird on the nest. They seem to get along well." Young said he enjoys gardening in his backyard among his bird feeders. Young has noted a wide variety of birds that visit his garden.



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Six times a year we'll bring you eye-popping art, photos and stories about Missouri's coolest critters, niftiest natural places, liveliest outdoor activities and people who've made a living in the wild. Come outside with us and **XPLOR!**

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Share the Harvest in 2011

Would you donate a pound of venison if you knew it would help feed thousands of hungry Missourians? It could, according to Dave Murphy, executive director of the Conservation Federation of Missouri. Conservation Federation of Missouri coordinates Share the Harvest, a citizen-led program that has been enlisting deer hunters to stamp out hunger in the Show-Me State since 1992.

Most venison donations consist of whole deer that hunters simply drop off at participating meat processors. Contributions from statewide corporate sponsors, combined with cash donations to local Share the Harvest efforts pay the full cost of processing about three-quarters of the deer hunters donate. Last year, hunters donated more than 5,000 whole deer, which yielded 350,000 pounds of ground venison.

Murphy says he is thrilled with Share the

Harvest's performance, but he says the program still could do much more.

"Last year, Missouri deer hunters checked more than 274,000 deer," said Murphy. "They donated a little more than 5,000 whole deer to Share the Harvest. That's wonderful, but just think how much more of a difference we could make if hunters donated just one pound of ground venison from each of the other 270,000 deer. We could double the number of hungry people we help."

To learn how and where to donate deer through Share the Harvest, call 573-634-2322, email mofed@socket.net, or visit mdc.mo.gov/node/2544. Participating meat processors also are listed on pages 46 and 47 of the *2011 Fall Deer and Turkey Hunting Regulations and Information* booklet, which is available wherever hunting permits are sold or as a PDF to download at mdc.mo.gov/node/3656.

Deer, Turkey-Tagging Changes

Bag it; notch it; tag it; check it. That is this year's deer and turkey tagging procedures in a nutshell. The self-adhesive game tags that hunters have been receiving when buying permits from vendors will be replaced with non-adhesive versions. Hunters no longer need to go to vendors. They can buy permits online and print them on home printers. These changes mean hunters need to provide a way of attaching permits to game. Hunters who print their own permits need a way to protect paper permits from moisture and other damage. Zipper-type plastic bags are made to order for this "bag it" part of the process. Twist ties, string, bailing wire or adhesive tape will work to attach tags to game. A sharp pocketknife will work to notch permits so they show the month and day the animal was taken. Be sure to put home-printed permits inside a zipper bag or other protective cover before attaching it to the deer or turkey. Finally, hunters need to "check it" by completing the Telecheck procedure by phone or online. You're done!

You Can Help Upgrade Trout Fishing

If you have ever wished it were easier to get to the water at Bennett Spring State Park, the Missouri Conservation Heritage Foundation (MCHF) has a way to turn your wish into a reality.

One of the most popular places to fish and view Bennett Spring's scenic waterfall is along the bank just upstream from the stone bridge. The concrete-covered slope is hard to get up and down, and it has been undermined by erosion. The Conservation Department wants to replace it with a 72-foot walkway and viewing platform and MCHF hopes to raise \$45,000 to fund the project.

If each of the 180,000 anglers who visit the park annually split the cost, the individual share would be 25 cents. Of course, not all those anglers will donate, so MCHF is encouraging anglers to give whatever they can to make the improvement a reality.

"We know that not everyone can afford a big donation," said MCHF Executive Vice President Rick Thom, "but it wouldn't take many donations of \$5 to \$100 to make this happen. We could do it if only one out of 100 anglers who use Bennett Spring pitched in \$25. We already have some substantial pledges, and we hope to



Bennet Spring State Park

Donations should be marked "Bennet Spring Platform." Donors of \$1,000 or more will receive framed prints of the 1995 Missouri Trout Stamp print, signed and numbered by wildlife artist Chuck Witcher. The print features a brown trout. A trout

Quick Draw Update

The first year of testing yielded mixed results and mixed reviews for Quick Draw. MDC piloted the program last year at three of the state's most popular managed wetland areas - Eagle Bluffs, Grand Pass and Otter Slough conservation areas.

Numerous studies have shown that lack of time is one of the main factors that keep people from hunting and other outdoor activities. Quick Draw saves hunters travel time by letting them know whether they have been drawn for a hunting spot before driving to a wetland area.

Quick Draw also offers more flexibility in planning hunts. Under the traditional system, reservations are assigned on Oct. 1, weeks or months before hunts occur. Quick Draw allows

raise the rest so the project can be completed."

Contributions can be made via credit card at www.mochf.org, or by sending a check to MCHF, PO Box 366, Jefferson City, MO 65102-0366.

stamp of the same number is mounted with each print. A permanent plaque at the structure will recognize donors at two levels, \$1,000 and \$5,000 and above.



ASK THE OMBUDSMAN

Q: How can I obtain a hornets' nest without being stung?

A: Bald-faced hornets do not occupy their paper nests during the winter and they don't reuse the nests the next year. The colony dies

each fall except for fertilized females that will overwinter in sheltered crevices (not in the nest) and start new colonies the following spring. The best time to take a nest is in the fall after we've had a few nights where temperatures were below freezing. That will ensure that the nest will not contain living hornets. As an added precaution, you may want to put the nest in a freezer for a week. The nests will be in the best condition if taken during the fall, because they will deteriorate over the winter due to weathering and lack of any maintenance by the hornets

Q: Why are some of the shrubs in my yard starting to flower now, rather than in the spring as they normally do?

A: Known as remountant flowering, it is not unusual to have a few flower buds opening in the fall on species that typically flower in early spring. In Missouri,

the evergreen rhododendrons and forsythia shrubs will commonly open a few flowers in October. Because most plant growth is halted over the winter, early spring-flowering plants have their flower buds developed and ready to go in the fall. Environmental cues to flowering such as temperature, moisture and day length can be the same in the fall as they are in early spring and some buds are "fooled" into opening. Usually only a small proportion of the flower buds will open prematurely, and you aren't likely to notice any fewer flowers next spring, during the normal flowering period.



Hornets' nest

Ombudsman Tim Smith will respond to your questions, suggestions or complaints concerning Department of Conservation programs. Write him at PO Box 180, Jefferson City, MO 65102-0180, call him at 573-522-4115, ext. 3848, or e-mail him at Ombudsman@mdc.mo.gov.

hunters to apply for hunts a few days to a week in advance, allowing them to make plans based on weather forecasts.

Before the 2010-2011 hunting season, MDC received more favorable comments about Quick Draw than unfavorable ones. That trend reversed after opening day. Fifty-five percent of hunter comments during the trial were negative. It's hard to know what percentage of hunters liked or disliked the system, since individual hunters could and did submit more than one comment.

One of the most frequent objections to Quick Draw focused on the number of hunting spots set aside each day for hunters who come to wetland areas without a reservation. Under the current reservation system, these "poor line" hunters draw for at least 50 percent of available hunting spots. Under Quick Draw, only 20 percent of spots are guaranteed for hunters without reservations. However, the number of hunting spots actually allocated through the poor line at Quick Draw areas last year was virtually identical to the previous year. This is because many people who drew reservations through Quick Draw did not show up.

There is no penalty for failing to use a reservation under Quick Draw or the traditional reservation system still in effect on 12 other managed

wetlands. The no-show rate at Eagle Bluffs went from 45 percent in 2009 to 51 percent last year. At Grand Pass, it increased from 46 to 48 percent, and at Otter Slough it went from 43 to 55 percent. Some hunters said they wanted a penalty for no-shows.

Another frequent objection was that Quick Draw gives an unfair advantage to St. Louis and Kansas City residents. However, an analysis of applications from the 10 Zip Codes with the highest application rates showed that less than 10 percent of applications came from the two metro areas. Hunters living within 50 miles of the three Quick Draw areas accounted for 31 percent of those who got to hunt on those areas the year before Quick Draw went into effect. That number increased to 35 percent last year.

Some hunters also expressed concern that Quick Draw would lead to overcrowding at the three pilot areas. However, the number of parties turned away from those areas decreased by 44 percent last year. The number of days on which parties were turned away remained the same under Quick Draw.

Other hunters expressed displeasure that Quick Draw might attract more novice hunters to managed wetland areas. This actually was one of the goals of Quick Draw. In 2009, 34 percent of

hunters on the three pilot areas were hunting on managed wetland areas for the first time. That increased to 38 percent under Quick Draw.

Waterfowl hunting is highly dependent on weather, water conditions and migration patterns. Statistics also have documented a large annual turnover rate among the waterfowl-hunting population. All these variables contribute to dramatic changes in hunter participation from year to year. Testing Quick Draw for one year provides a snapshot of how the system worked under a particular set of conditions. MDC is testing the system at the same three areas again this year to learn how it works under different conditions. A formal hunter survey will be conducted following the 2011-2012 hunting season to get an accurate picture of how participating hunters view the system after two years' experience.

For more information about Quick Draw, visit mdc.mo.gov/node/9532.

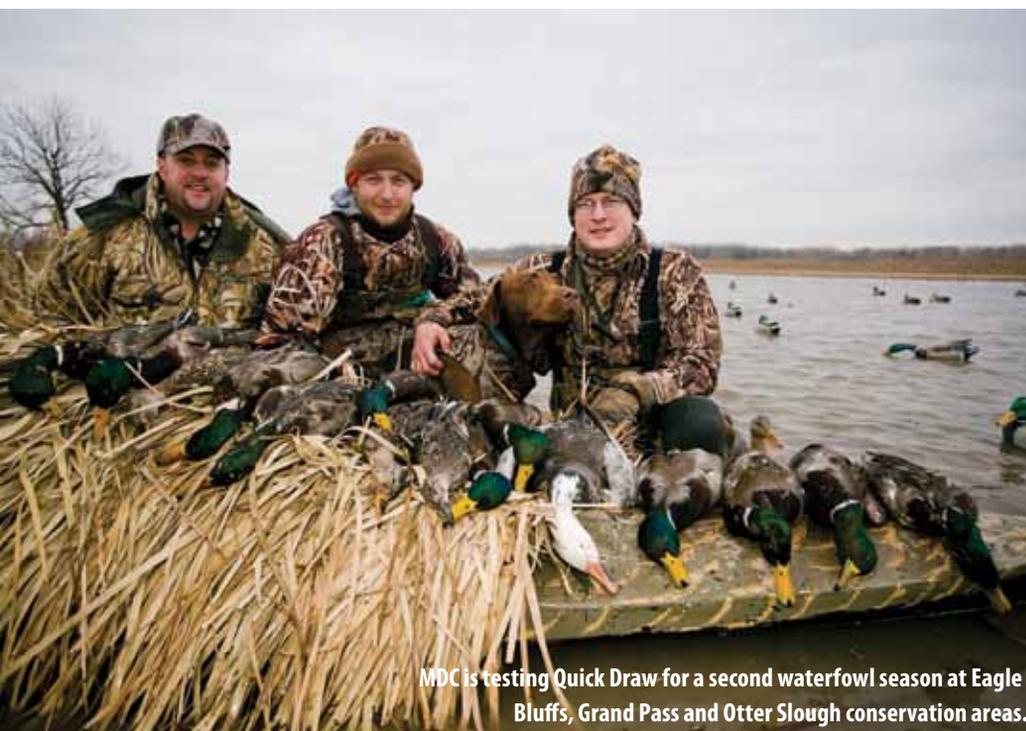
Funding for Cavefish Habitat

U.S. Secretary of the Interior Ken Salazar recently announced a \$534,750 grant to help MDC acquire an 895-acre conservation easement on land to protect three endangered species: the Ozark cavefish, the gray bat and Missouri bladderpod. The land in Lawrence County will remain in private ownership, but with permanent title restrictions to preserve its natural values. Caves, sinkholes and underground streams lie beneath the land. Without the protective easements, soil erosion and other human-caused changes could damage habitat that sustains the three endangered species. MDC is partnering with the Ozark Regional Land Trust, which will manage the easements to protect cave life, along with plant and animal communities, such as limestone glades, on the surface.

MDC's Joplin Relief Efforts Ongoing

When disaster strikes anywhere in Missouri, you will find MDC in the thick of relief efforts. Disaster relief isn't one of the agency's core missions, but the agency's resources belong to Missourians, and those resources often are uniquely suited to relief work. The tornado that tore through Joplin in May is a perfect example.

Conservation agents' training equipped them to participate in every phase of law-enforcement



MDC is testing Quick Draw for a second waterfowl season at Eagle Bluffs, Grand Pass and Otter Slough conservation areas.

work in the twister's wake. Immediately after the storm, six agents and a protection district supervisor performed search-and-rescue work, traffic control, neighborhood security patrols, nighttime patrols and curfew enforcement.

While conservation agents worked with other law officers, 16 MDC Forestry workers organized into three chainsaw teams worked tirelessly to clear trees from streets for search-and-rescue teams. After the initial emergency phase, MDC Urban Foresters responded to assess tree survival so recovery and rebuilding efforts could begin. MDC's national network of contacts enabled it to call in the National Urban Forestry Strike Team to train and assist 18 Missouri foresters in post storm tree assessment. MDC provided a 1-ton, 4X4 flatbed dual-axle truck and two 1 ¼-ton 4X4 pickup trucks to replace Joplin Fire Department vehicles lost to the tornado.

Working with the USDA Forest Service and private forestry workers, MDC has requested \$100,000 in federal funds to help direct the long-term recovery of trees destroyed by the twister and citywide community forest assistance. MDC also is helping fundraising efforts of diverse organizations such as the National Arbor Day Foundation, Forest ReLeaf of Missouri, the Community Foundation of the Ozarks, Southwest Missouri Resource Conservation and Development and the Missouri Conservation Heritage Foundation to help Joplin get back on its feet.

In the years to come, MDC urban foresters will be available to advise Joplin residents as they set about replacing the community forests they lost around their homes, parks and streets.

"MDC employees are woven into the fabric of every community in Missouri," said Director Robert Ziehmer. "I am thrilled by the courage and dedication they show whenever the chips are down, and proud to be able to commit our agency's resources in times of need."

Prairie-Chicken Boom

A break from the weather, along with refinements in grassland management, contributed to a boom in prairie-chicken reproduction this year. Unusually cool, rainy conditions, like those that have prevailed during the spring and summer for the past four years, drown out prairie chickens' nests and cut deeply into

the survival of chicks that do hatch. This year's weather was relatively normal, and Missouri's endangered prairie chickens responded with a remarkable 80 percent nesting success rate. Fifty percent is considered normal in stable populations. Missouri's prairie chickens once numbered in the hundreds of thousands. Their disastrous decline began with the conversion of native prairie to other agricultural uses. MDC began trapping prairie chickens and moving them to Wah'Kon-Tah Prairie near El Dorado Springs in 2008. MDC crews located 29 prairie-



chicken nests this summer at Wah'Kon-Tah Prairie and nearby at Taberville Prairie in St. Clair County. Of those, they determined that hens in 23 nests hatched broods.

Did You Know?

Conservation makes Missouri a safe place to hunt.

Hunter Education

- » **877** hunter education classes were offered last year.
- » **22,852** were certified in hunter education last year.
- » **More than 1,000** programs with instruction in hunting, fishing, trapping and shooting sports were provided by MDC and volunteers last year. More than **36,000** people took part in these programs, which are aimed at increasing participation in and knowledge of traditional outdoor recreation.
- » **Two different styles of hunter education courses** are offered—a 10-hour traditional classroom lecture or an online course coupled with a five-hour field day.
- » **Who must be Hunter Education Certified?** If you plan to hunt alone with a firearm, you were born on or after Jan. 1, 1967, or you are 16 years of age or older, you will need to take and pass a hunter education course or purchase an Apprentice Hunter Authorization before you can buy a permit. You must be at least 11 years old to take the Missouri Hunter Education Class.
- » **Topics covered in the hunter education course:** hunter responsibility and ethics; how firearms work and firearm safety; wildlife identification, game care, survival and first aid skills; firearm handling skills and hunting techniques; awareness about wildlife conservation and management; rules and information unique to Missouri.
- » **For more information on hunter education**, including where to enroll, visit mdc.mo.gov/node/3477.

Eat Your Weedies

Wild edibles and the legacy of Frances Mathews

by LISA LACOMBE

PHOTOS BY DAVID STONNER

IF YOU HIKE ONE OF THE SIX EXCEPTIONAL TRAILS that meander through Burr Oak Woods Conservation Area in Blue Springs, you may meet a lady, small in stature, but full of spunk and passion, wandering and searching along the path. If your curiosity gets the better of you, and you stop to visit, you are in for a real treat.

Frances Mathews may be a small woman, but her legacy is not. She may invite you to see the object of her scrutiny, indicating a tiny plant growing up through the cracks in the trail with the tip of her handmade hiking stick. As your eyes focus on the object she indicates, you may discover that tiny, pesky weed with succulent leaves that you have pulled from your own sidewalk on many occasions. With a smile she introduces you to purslane.

“This little plant is chock-full of heart-healthy omega-3 fatty acids that can lower blood pressure and cholesterol levels. It is high in vitamin C, iron, magnesium, potassium and calcium and contains more beta-carotene than spinach,” she explains. “If you can’t get past the idea that it is a detestable weed, you will miss out on one of the most nutritious plants on earth.”

Like the Missouri Department of Conservation, Frances is dedicated to sharing our outdoor heritage with the next generation. Foraging for wild edible plants is a tradition that she intends to keep alive. These strong convictions have become her legacy.

Frances has shared a lifetime of knowledge with visitors to Burr Oak Woods. She will tell you that these plants are a gift from the earth that we have all but forgotten. Learning about wild edible plants is so much more than an act of nostalgia. She believes that the more we learn about these nutritious and delicious treasured plants, the greater understanding we will have about nature and a healthy lifestyle. Foraging for them is also a fun family activity in nature that helps to stretch the family budget—rather than break it.

A Natural Forager

Frances began her education as a 5-year-old girl. She vividly recalls the details of the first time she was allowed to forage for wild mushrooms and greens with her aunts, uncles and a neighbor back in 1936.

She woke up early that morning and kept watch, leaning out the windowsill with her chin resting on her crossed arms. When the car finally pulled up in front of the house, Frances grabbed a threadbare onion sack and bucket, hurried out the front door, and hopped into the rumble seat. She loved the way the warm spring breeze felt against her face as they wound their way into the country. Heavy morning dew sparkled on the grass.

It seemed an eternity before her uncle finally slowed and stopped the car. The ravine nestled between the wooded hillsides invited exploration. Like a butterfly, she flitted between one wildflower and the next, delighted. She picked violets and wild sweet William to create dainty bouquets while the adults searched for morel mushrooms.

Suddenly, she was called over. To her astonishment, the entire hillside was dotted with morel mushrooms. They picked the tender fungus until their sacks overflowed. Frances was afraid to take a step for fear of crushing one of these treasures. The afternoon warmed as the sun climbed





Maple seeds

higher in the sky, and the group spent the remainder of the day selecting tender green shoots from the moist, rich soil. Frances was taught to identify golden seal, stinging nettle and burdock. They picked spring beauty and red-bud blossoms.

That evening they shared a meal of wild spring greens and fried morel mushrooms. To this day, Frances swears that it was the very best meal she has ever eaten. So began her love affair with wild edible plants.

Mothering, Mentoring and MDC

Frances grew up, married and became a mother, but she never lost her passion for exploring and collecting wild plants. She often foraged for wild greens to supplement her grocery store purchases. She became a Girl Scout leader for her daughter's troop. As she introduced these young girls to edible plants, she continued to add to her own knowledge base. She still takes time each year to mentor Girl Scouts and their leaders in the Kansas City area.

Frances has noticed an alarming trend over the years, however. Each successive generation of children is getting outside less and less. Fewer leaders have the confidence to take the girls outside to explore.

Research indicates that this growing trend is detrimental to the health of our children and society as a whole. Frances encourages scout leaders to get these kids outside. Nature is a giant classroom and, if encouraged, children eagerly absorb each experience. When outdoors with a positive adult role model to mentor and guide them, they develop a deeper understanding of the natural world and are more likely to become good environmental stewards in the future.

In 1996, Frances became a volunteer for the Missouri Department of Conservation. It didn't take long for her to introduce the staff of Burr Oak Woods Conservation Nature Center to wild edible collecting. We sampled and learned to identify Jerusalem artichoke and cattail. Then



gooseberries, smooth sumac, blackberries, pawpaws and persimmon... The list continues to grow. Over the past few years she has become something of a guru to all of us. Her programs have grown exponentially in popularity.

The Wild Ones

Before long, the other volunteers discovered her message. She now has a loyal group of volunteers that work side by side with her to develop programs on a monthly basis, dubbing themselves the "Wild Ones." They worked together to produce a Wild Edibles Cookbook titled *Eat*

Foraging Tips and Safety

Nothing compares to the satisfaction of foraging for wild edible plants for the dinner table. Even in a fast-paced world, this activity creates a deeper understanding of nature and encourages a stronger connection to our ancestors and history—it's also just plain fun.

Before you head into the forest, there are a few important

points to remember: When foraging for wild plants, you must be able to positively identify a plant before you collect it. If you are not absolutely sure, leave it alone. Even if you are certain of your identification, a great rule of thumb is to taste only a very small amount when sampling a plant you have never tasted before.

There are lots of places where you can collect wild edible

plants—along a creek, in the forest, on the prairie, in a field, even in your own back yard! Respect private property. Do not venture on to land without obtaining landowner permission. If you would like to forage on public lands, know the regulations that govern that area first. When you find the perfect place, make sure you find out whether pesticides have been used in

the area and always wash your plants before you eat them.

Most important of all, make sure you collect only what you need. You are conservation! Leave some behind. Each plant species plays an important role in the ecosystem. Next year, when you go out, you will be one step ahead. You will know exactly where to find these delicious treasures.

Happy hunting!



Wild edibles gathered from Frances Mathews' backyard makes up a salad that includes crows-foot greens, maple seeds, redbud blossoms and a variety of Missouri nuts.

Your Weedies. This publication is so popular that they have a difficult time keeping enough copies on hand.

Not long ago, Frances and I met to brainstorm ideas for upcoming programs. We became excited about this idea and then that. Typically lively and animated, Frances suddenly became quiet. At last she looked up, misty-eyed, and said, "I have often pondered the significance of my life. Now I understand. My purpose is to share these traditions that have been passed down to us from our ancestors." It was her mission to share the excitement and importance of these natural gifts with our children, she explained. It would be her gift to everyone who wanted to listen.

Camaraderie, support and teamwork have grown between Frances and the other Wild Ones. Each one of these volunteers plays a role in developing programs and in writing their book. As they meet at the Nature Center each week, present new findings and discuss new ideas, Frances sits back and smiles quietly, proud of her team and what they have accomplished together. She is confident in their abilities and is able to turn over the lead in programs to her counterparts.

Hit Programs

Frances and the Wild Ones present a monthly program throughout the growing season. These programs include: spring greens, a spring tea room, a tour that focuses specifically on purslane, wild grapes, and an annual Soup and Fable program.

Soup and Fable is presented as if it were a fine dining experience. Autumn's wild harvest is showcased, complete with menu, hostesses, black tie apparel, uniquely flavored soups, breads and delicate wild teas. The team shares interesting tidbits of information about the wild plants used for the evening's fare and then our guests are invited to sample the main entrées. We conclude the evening with storytelling and music, sipping tea and taste-testing scrumptious desserts—all made from wild plants of course!

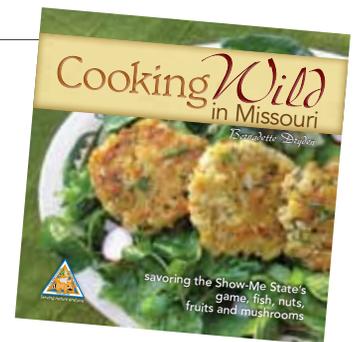
In each program, Frances shares a few ideas on where plants can be collected legally and safely. She cautions foragers to make absolutely sure that collecting is legal on a chosen area, and to avoid areas where pesticides have been used or salts and chemicals have been applied to roadways. One of the first lessons she learned as a young girl was to take a little, and leave a little behind for the next visitor. She also advises them to make a note on the location of the plant, so that they can find it again next year. She makes absolutely certain that the seed of conservation ethics is planted in the minds of her participants.

Frances and her Wild Ones teach their audience that foraging for edible wild plants is much more than adding interest and variety to our dinner table. This activity offers an incredible portal into the wilderness—to observe the world of a white-tailed deer, to hear the unique melody of a songbird, or to witness that field of native grasses decorated by the morning dew. It is a way to rediscover your own delight in the natural world and connect with others. Take the time to share this experience with your family and friends, children especially, and share in the legacy of Frances Mathews. ▲

Cooking Wild in Missouri

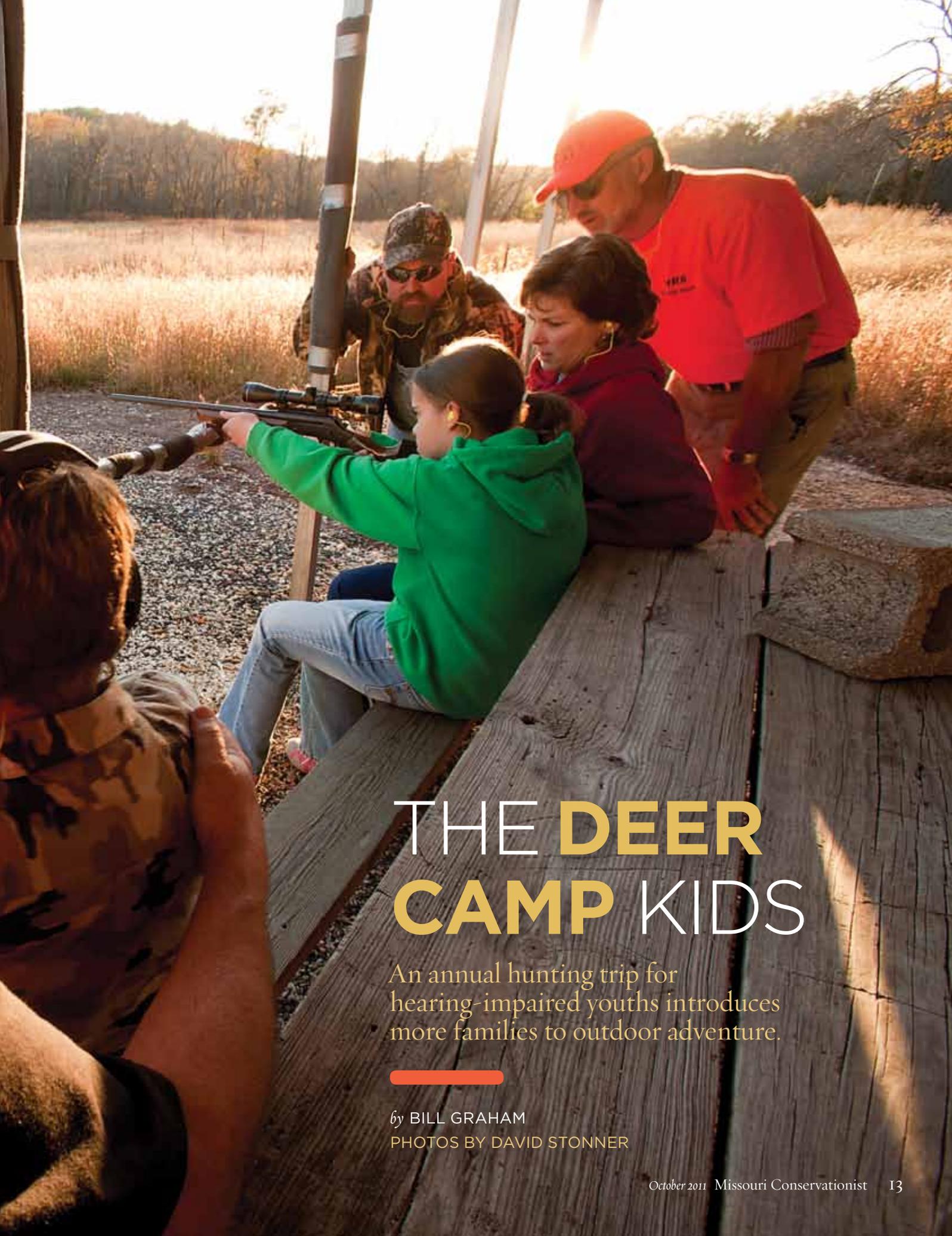
The Conservation Department now offers a colorful new cookbook that emphasizes local, seasonal ingredients in tempting appetizers, fresh salads, savory stews, elegant entrees and delectable desserts.

Cooking Wild in Missouri, created by author Bernadette Dryden, can be purchased for \$15 plus shipping and handling, and sales tax (where applicable) by calling toll free 877-521-8632 or visiting mdcnatureshop.com. You may also visit locations in our nature centers and field offices where MDC products are sold. See Page 3 for regional phone numbers to call for a location near you.





MDC Outdoor Skills Specialist Chris Capps (left) explains targeting to Timmie Gunn, 13, while others sight in rifles at a hunt for hearing-impaired kids at H. Roe Bartle Scout Reservation near Osceola.



THE DEER CAMP KIDS

An annual hunting trip for hearing-impaired youths introduces more families to outdoor adventure.

by BILL GRAHAM
PHOTOS BY DAVID STONNER

DAYBREAK REVEALED TREES AND trails to the young hunters, though the woods remained quiet for them. Most could not hear crows cawing or squirrels rustling dry leaves outside camouflage blinds.

But silence dimmed no hopes.

The hunters knew that white-tailed deer were on the move somewhere in the late-October woods at the H. Roe Bartle Scout Reservation, and a buck or doe might appear within gun range at any moment.

Timmie Gunn, 13 (in October 2010), watched as sunrise slowly turned dark shapes into tree trunks and a valley outside his blind.

“There’s a trail down there where the deer cross; it’s a good spot,” said Chris Capps, a Missouri Department of Conservation outdoor skills instructor serving as Timmie’s guide and mentor. “We may see some turkeys this morning, too, and maybe even a bobcat.”

Timmie turned to his stepfather, Eric Pettit of St. Peters, who repeated the message to make sure his son understood via lip reading and the cochlear implants that aid his hearing.

“Bobcat,” Timmie repeated. He smiled, raised his binoculars to his eyes and gazed into the woods.

Timmie Gunn’s face is reflected in his rifle scope while he works on the target range.

GETTING EVERYONE OUTDOORS

This special hunt for youths with hearing impairments is a cooperative effort by the

Missouri Department of Conservation, the Boy Scouts of America and volunteers organized by Scout leaders at H. Roe Bartle Scout Reservation near Osceola.

“We’re giving these kids a chance to do something that most of them have never had the chance to do before,” said Craig Jones of Kansas City, a Scout leader and deer camp organizer. “We also do it because they’re just great kids.”

The annual deer camp for hearing-impaired youths began in 2004 and is held in conjunction with the statewide early youth deer hunting season for hunters ages 6 to 15. It is rooted in the Conservation Department’s commitment to help all people discover and enjoy the outdoors.

The partnership with the H. Roe Bartle Scout Reservation began when a former conservation agent took a special interest in helping those with hearing challenges. That led to an annual outdoor fun camp in August at the Scout reservation for youths and their families. The camp attendees fish, paddle canoes and target shoot with guns and archery equipment. Volunteers at that event decided if they were going to teach the youths how to shoot, they should also help them learn to hunt.

The 4,200-acre Scout camp borders Truman Lake and has plenty of deer roaming in the rugged, wooded hills. But there’s also another advantage: Hunters and volunteers use Scout cabins for sleeping, a mess kitchen for meals and the main office as a daytime rendezvous point.

Most of the time, though, the hunters are tromping in the outdoors and enjoying all the deer camp trimmings. That includes shooting practice, which is held at the reservation’s firing range on the Friday eve of the youth season.

Fetlework Blitch, 11, of Nixa, sat down at a bench on the firing line and hefted a bolt-action .243 rifle to her shoulder. The rifle and several others were provided for campers by the Conservation Department’s outdoor skills education program. Fetlework peered through the scope and then chambered a cartridge with help from Capps. After firing a few rounds, she was on target and ready for deer.

Her hearing difficulties have not limited Fetlework’s hunting abilities, said Vernon Blitch, her father. His daughter is adopted from





Ethiopia. Fetlework has taken a wild turkey with a shotgun, and she is learning to shoot with archery equipment.

“I like seeing the animals, and I like being outdoors,” she said, “and I like to eat them.”

Good food and friends are a key component of this deer camp. A barbecue on Friday night was topped off with cherry and apple cobbler baked in Dutch ovens in the cook pit. Halloween treats and a bonfire add to the fun. Hunters, parents and guides gather around logs burning in a massive steel fire pit that includes the words “Missouri School for the Deaf.” The pit was donated by professional welder and hunt volunteer Wayne “Cuz” Hoenshell of Garden City.

“It’s the kids and seeing them so happy that makes us do this,” Hoenshell said.

Sign language is the norm for telling hunting stories and jokes at this deer camp. Each young hunter is accompanied by a parent or guardian,

and they serve as signing interpreters if needed between hunters and guides.

SUPPORTING PARENTS AS MENTORS

Deer camp is also a chance for parents to get outdoors with their child in a manner that many would not attempt without some extra support and guidance, said Karen Jones, who mentors young women hunters and helps organize the camp along with her husband, Craig.

“It’s more than just them getting a deer,” she said, “it’s the whole outdoor experience. This camp has evolved from just a hunt to also a bonfire, a Halloween party and a Saturday evening visit to a corn maze.”

Volunteers make the varied activities possible. Some cook meals, while others operate a crafts, games and snack area for hunters who have bagged their deer or simply want to quit hunting for the day. A few volunteers stand ready to help field dress deer, bring them into

Range staff give directions to Fetlework Blitch, 11, while her father interprets with sign language. Fetlework’s hearing disabilities have not limited her hunting abilities.



Eric Pettit and his stepson, Timmie Gunn, keep an eye out for deer with Outdoor Skills Specialist Chris Capps. The annual deer camp is held in conjunction with the statewide early youth deer hunting season.

camp and process the meat to send home with family members.

The first deer camps were for students from the Missouri School for the Deaf in Fulton. Later, students from the Kansas School for the Deaf began attending. Now hunters include students with hearing impairments who attend regular private or public schools throughout Missouri.

Craig Jones believes their deer camp model can be copied by others, too. “The hardest thing is finding a location,” he said. “Otherwise, all you need are volunteers, time and effort.”

Since this is a real, working deer camp, effort is required from everyone—including the young hunters.

A 5 a.m. wakeup call roused Timmie and his fellow hunters out of warm cabin bunks and into chilly, pre-dawn darkness. Pancakes and eggs at the mess hall helped knock some sleepiness from their eyes, though, and the walk to their blinds put them wide awake.

The hunters generally harvest two to five deer each year at the reservation. It’s not a large tally, but not bad for brand-new hunters.

VALUE OF THE HUNT

Capps made sure Timmie had a prime center seat in the blind with good visibility in all

directions. Pettit checked his son’s Rossi .243 single-shot rifle, a birthday present, to make sure the safety was on, and he helped him load a cartridge.

Morning brought squirrels digging for acorns beneath the leaves, a red-tailed hawk gliding over the treetops and the rise and fall of the wind. They could hear distant shots fired by other hunters on private property.

But no deer appeared before Timmie’s blind, and only one missed shot was fired by his fellow campers.

That did not discourage most hunters as they gathered for lunch. “I had fun,” Fetlework said. “I plan to go back out.”

After lunch, most guides and guardians in deer camp were thinking about naps, but Timmie was ready to head back to the woods. So, with fallen leaves crunching underfoot, the trio hiked back to the blind.

Again, hours passed and no deer appeared. Timmie grew restless.

Then, suddenly in late afternoon, things changed.

“There’s one coming in,” Pettit said, “to the right.”

Capps started to raise his field glasses and then realized he didn’t need them, the deer was close.

“Oh my,” he said, “it’s a big one. Get ready.”

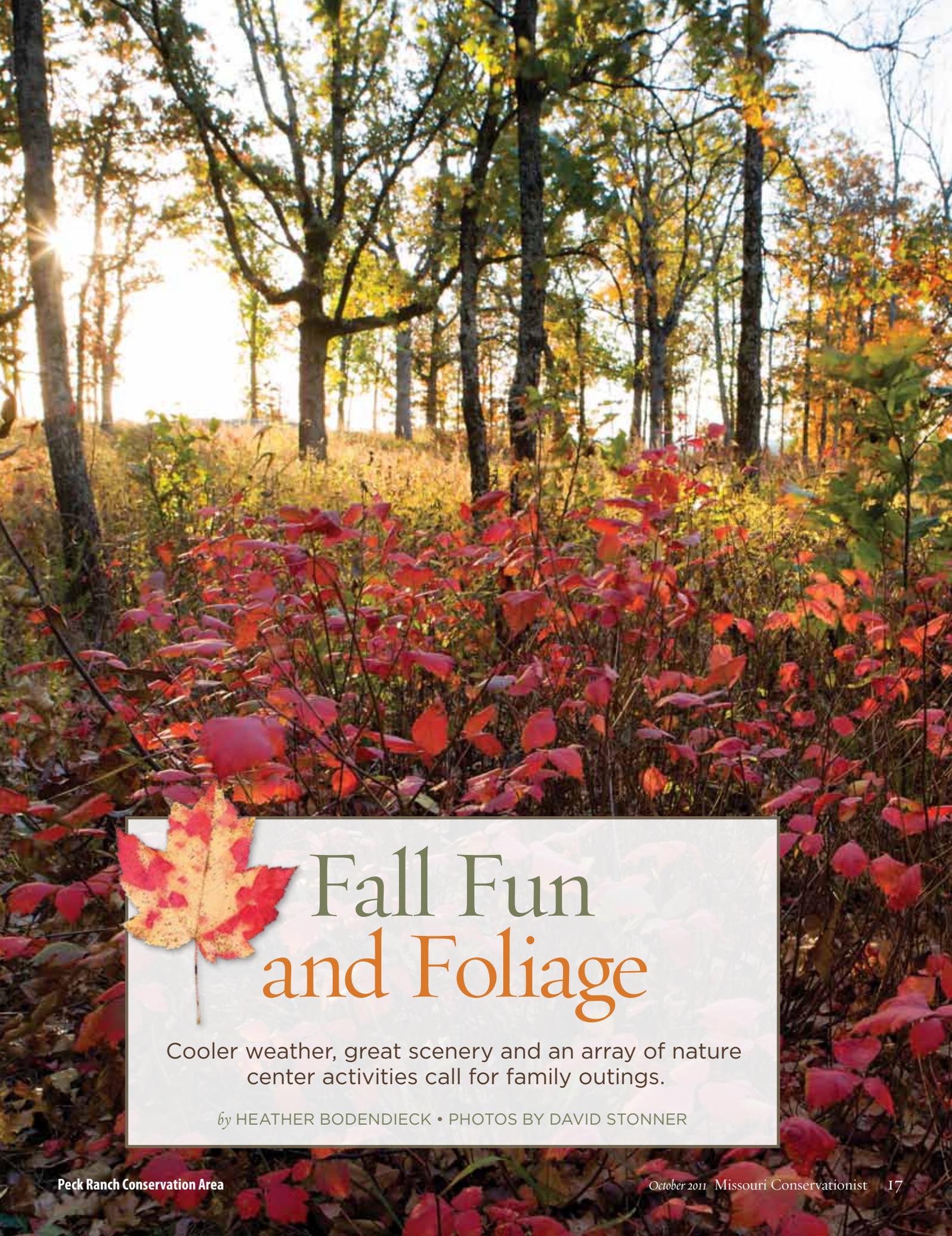
Timmie saw the deer moving and tried to get the rifle shouldered and ready to fire, a process that was still underway as a very large buck deer with huge antlers sauntered nervously past the blind, probably within 30 yards.

The deer moved past the blind and through the trees, and then stopped for a moment at a distance. But before Timmie could find a good aiming point and fire, the buck slipped out of sight.

He did not speak but turned to his father, smiled hugely and pounded lightly on his chest to signal his fast-beating heart. Then he turned to gaze into the woods again, more anxious than ever, a deer hunter.

The smiles are what Jones and the other volunteers seek. “Even if they don’t get a deer,” Jones said, “we want them saying, ‘I had a ball.’” ▲

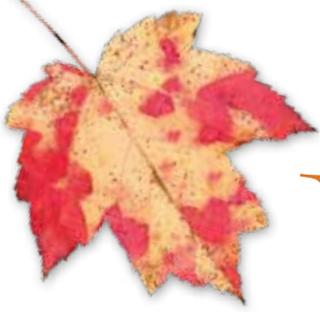
Anyone interested in the deer camp can contact Craig Jones at 816-254-1013. The hunt is limited to 15 participants on a first-come, first-serve basis.



Fall Fun and Foliage

Cooler weather, great scenery and an array of nature center activities call for family outings.

by HEATHER BODENDIECK • PHOTOS BY DAVID STONNER



I HAVE A BEAUTIFUL DRIVE TO WORK. Every morning, tree-covered hills usher me off to my day. Every evening, they welcome me home. Throughout the month of September, the lush green of the trees begins to dull, as if the hills themselves are taking a deep breath for their final song of the year. Then, ever so slowly, splashes of color begin to appear.

I eagerly wait for those first hints of yellows, oranges and reds. When they arrive, I know it's time to welcome another beautiful Missouri autumn. With a little help from the Missouri Department of Conservation's website, I was able to follow the appearance of color across the entire state.

My husband and I are always eager to find last-minute outdoor adventures for our family before our three boys are cooped up for the winter. This year, the month of October yielded three new adventures for us.



Powder Valley

I've always had a soft spot for Powder Valley Nature Center in St. Louis—it offered me hours of free entertainment for my boys when they were little. At the time, we lived close by and I could load the two youngest in a double stroller and easily walk their disabled- and stroller-accessible trails. We hadn't been there in a couple of years, though; so it was a chance to rediscover a long-lost friend. We set aside an entire morning to explore, although we could have easily spent an entire day.

As we entered the nature center, my boys made a beeline for the copperhead, rattlesnake and alligator snapping turtles on display. While the younger boys, Blake and Chris, were giving their father a puppet show, my eldest son, Dylan, was checking out the gift shop. He used his allowance and a few dollars he sweet-talked out of my wallet to buy notebooks for himself and Blake. For Christopher, he bought some small plastic bugs.

Blake and Dylan used their new notebooks to make leaf rubbings from metal templates in the center. Knowing we only had one morning and wanting to hike at least one trail, Adam and I tried to strike a balance between letting the boys explore their fill while still keeping the expedition moving along.

Every exhibit fascinated them: peeking inside trees to see what lives there, seeing the inner-workings of a beehive, running their own park through a simulation game, feeling pelts of their favorite animals, and seeing fish from a different angle. There is so much to see, smell, feel and do.

By the time we pried them from the indoor exhibits, the morning was slipping away. We decided to take the shortest trail to save some time, even though it held less promise of fall color.

Most of the color on the trail was faded yellows and greens, but that was okay by me because it made the bright orange or red trees scattered throughout seem more special when they did peek through.

Fallen leaves nearly covered the paved trail—that didn't stop Christopher from trying to dodge them to keep from alerting the deer to our presence. I'm not sure which was more humorous: the idea that our family could keep quiet enough to not scare the deer away, or my 6-year-old trying to dodge leaves like they were a laser-beam security system.

We never did see a deer, but we did stop for a while to watch a box turtle lumber over the litter on the forest floor. After a bit, we took another break for the boys to sketch the trees in their newly acquired notebooks. While cute in theory, the idea of documenting the journey was probably taken a bit far when they decided to draw a picture of the deer scat (or poop, in kid-speak) on the trail. Ah, the joys of having sons.



Rocky Creek

Usually when I think of the Ozarks, I think of Douglas County—I'll always love the wild hills surrounding Ava, Mo. But I've wanted to visit Shannon County for a while now, and the Rocky Creek Conservation Area driving tour seemed like a good reason. Dylan was game for tagging along.

As we approached the striking bluffs near our destination, I was glad we had come.

Patches of grass that refused to give up their emerald hue stood in stark contrast to the tall brown prairie grass bending gracefully in the breeze. Many of the trees were brown, signaling that we'd missed the peak of fall in that neck of the state. Evergreens filled in the gaps





Rocky Creek Conservation Area

created by the falling leaves, patiently waiting their turn to shine.

Occasionally, we'd get a glimpse of the hills beyond through the tall pines lining the winding but well-paved road. Beautiful bridges were tucked into the landscape. At one point, the trees made an archway over the road—it was like something out of a fairy tale.

I grew up roaming the woods of my grandfather's 200-acre farm in Douglas County, but I don't recall ever feeling quite that remote before. There were times it felt like Dylan and I were the only two people on the planet in that forest, and it made me wonder what it must have been like for the first pioneers to settle the area. After a crazy week at work, the solitude was delightful.

The woodland restoration project was fascinating to see, even more so when you read the accompanying explanation from the

Department of Conservation website that explains the work that's gone into ensuring this forest is around for future generations to enjoy.

The scenery was amazing, but the real value of this trip was the time in the car. I'm so busy and Dylan's growing up so fast. It was good to push the pause button for a day to just go on an adventure with my son. It created the environment for the kinds of conversations that can't happen in snippets of stolen time.



Little Dixie Lake

By the time we made it to the Little Dixie Lake for our planned fishing expedition, we'd reached that point in fall where plants, animals and human alike are all waiting for the first snowflake to fall. You know it's coming and can feel it in the air. But there's



just enough sunshine left in the day to make you want to run out and do all the things you didn't get your fill of in the summer: catch one more fish, hike one more trail, or ride your bike.

With the exception of the rare golden or fiery red tree, the hills were a patchwork of muted fall colors as they faded softly into winter.

When we arrived at the lake, I was surprised by the open, crisp beauty of the place. Just off the parking lot, boats were lined up neatly, dormant for the season and waiting for warm weather and their return to the lake.

We might have missed boat season, but there were still two large, metal docks that were perfect for catching crappie. (I know—I caught the first fish of the day!)

The fishing holes we normally frequent close to our home are tough on novice anglers. There are currents and rocks to contend with. There's

a hog-nose snake that loves to steal our bait and there isn't much room for casting, so I spend a good portion of my time either casting for the youngest children or untangling their lines from nearby vegetation.

But here the docks were large enough for us to fan out to the four corners, and the boys could cast to their hearts' delight without catching a tree or a brother. It was completely relaxing.

When the kids grew bored with fishing from the dock, we decided to hike the perimeter of the lake. Along the way, we found half of a hollowed-out tree stump that was large enough for each of the boys to stand in. I lost count of the great fishing holes as we hiked. We got our lines wet a dozen more times. We didn't catch anything, but that was because we'd cast once and then spy another fishing spot we couldn't wait to try. So we'd reel in and scurry to the next location.

The driving tour at Rocky Creek Conservation Area in Shannon County is approximately 5 miles long and provides explanations for forest restoration work along the way.



Springfield Conservation Nature Center



Little Dixie Lake is the kind of place that beckons you to spend a lazy day fishing, picnicking and exploring. I promised the boys we would go back next summer to rent a boat for the day.

It's easy to fall victim to an overly full schedule—days slip by. It's hard to carve out time with your family, even harder to find something to do that won't empty the bank account. Or so I thought. Once I knew where to look, I realized that I'm surrounded by free or inexpensive ways for my family to spend time together. And the memories we created were well worth the effort it took to rearrange my schedule.

Things to See & Do

Each of the areas I visited with my family has plenty to see or do. Here are a few things I recommend checking out on your family's adventure:

POWDER VALLEY—the list of things to do at Powder Valley Conservation Nature Center is nearly endless. While there, choose from one of three paved trails for a hike or a stroll. Give yourself plenty of time to explore the many indoor exhibits. A favorite for my family is an interactive game that allows you to "run a park" of your own. Before you arrive, check their calendar online for upcoming classes and events.

ROCKY CREEK CONSERVATION AREA DRIVING TOUR—be sure to take along the corresponding guide, which can be found on MDC Online at mdc.mo.gov/node/9825. In addition to providing a map of the project area, the guide will explain each marker along the driving tour.

LITTLE DIXIE LAKE—if you head to this conservation area early enough in the season, you can rent a boat for \$5/day. Only the boat and oars are provided, so be sure to bring a life vest for everyone. You'll also want to remember your tackle box and fishing poles. We had the best luck with crappie on our visit, but that could have been due to lack of patience! Consider hiking around the perimeter of the lake to look for the perfect picnic spot while you're there.

Roads Not Taken

There are a myriad of things to do with your family to enjoy Missouri's breathtaking autumn season. By following the fall color updates on MDC Online, you can plan your adventures to follow the best color.

It's hard to carve out time with your family, even harder to find something that won't empty the bank account. But once I knew where to look, I realized that I'm surrounded by free or inexpensive ways for my family to spend time together.

Here are a few activities and places my family didn't make it to that we hope to try next year:

FALL MUSHROOM HUNTING IN THE MISSOURI OZARKS—There are more edible mushrooms in autumn than any other season. Beyond the popular morel, you may find hen of the woods, blewits, lobsters, chanterelles, chicken of the woods, black trumpets or oysters. These wonderful mushrooms fruit earlier in the season, but can also fruit in the fall. To learn more about mushroom hunting safety and recipes, check out *Fall for Wild Mushrooms* at mdc.mo.gov/node/9821 and *Safe Mushroom Hunting* at mdc.mo.gov/node/4221. You can also purchase a copy of *Missouri's Wild Mushrooms* at mdcnatureshop.com.

HIKING IN NORTHWEST MISSOURI—I realized when I wrote this article that I've been all over south and central Missouri, and it's about time I explored the northern portions of the state. I can't think of a better way to do that than getting out and walking the trails of one of the many Conservation Areas located throughout the region. By using the Conservation Area Atlas located online, I can find the perfect spot to explore.

HORSEBACK RIDING AT THE CANAAN CONSERVATION AREA IN GASCONADE COUNTY—This mostly wooded Conservation Area has approximately nine miles of multi-use trails, along with several creeks and springs. Fall will be a great time to get my family out of the riding arena and onto a trail.

Exploring Fall Color

Learn more about Missouri's fall foliage and forests, and where to find the best examples and driving tours, on the Department's website at mdc.mo.gov/node/4548. ▲



THE KEY TO SUCCESSFUL DEER MANAGEMENT

*Antlerless permits empower landowners
to manage their deer populations.*

by JASON SUMNERS

AS THE AUTUMN SUN SETS ON THE FAR ridge, I hear the faint rustling of leaves. The sound grows louder as a doe approaches upwind of my tree stand. In years past I would have made the slow, deliberate movements to get into position and wait for a nice broadside shot. Not today. As she eases her way into a shooting lane, my bow remains on the hanger. I want to increase deer numbers on the property, so the decision is easy. I watch her munch on freshly dropped acorns and wander out of range.

Although antlerless permits are available in unlimited quantities for both archery and firearms seasons in the county I hunt, I had already decided to pass on does months earlier. It is important to remember that unlimited antlerless permits provide flexibility for landowners and hunters to make management decisions that are appropriate for their individual situations—they are not site-specific harvest recommendations. For me, the right decision was to not use an available antlerless permit and let the doe walk—hopefully to raise a few more healthy fawns.

Appropriate doe harvest is a vital part of successful deer management and one of the most misunderstood. As a deer biologist for the Department of Conservation, a frequent question I get from hunters and landowners is “how many does should I shoot?” On the surface,



White-tailed buck

NOPPADOL PAOTHONG

this might seem like a pretty simple question to answer; however, many factors must be taken into consideration. In this article, I'll explain the role of antlerless harvest limits and provide landowners and hunters with a practical guide to make harvest decisions that meet their management goals.

ANTLERLESS HARVEST LIMITS

The Department of Conservation sets antlerless deer limits on a county-by-county basis. The Department's deer management goal is to maintain deer populations at levels that provide adequate opportunities for hunters and people who enjoy watching deer, but low enough to minimize crop and landscape damage and deer-vehicle accidents. The availability of antlerless permits in any number is intended to provide landowners and hunters with the flexibility to make harvest management decisions that are appropriate for their property and deer management goals. The availability of antlerless permits does not necessarily mean that hunters need to harvest more does in that county.

More than 90 percent of Missouri is in private ownership and, as a result, landowners largely dictate the distribution of hunters and hunting pressure. There are a number of factors that create differences in deer numbers.

- » Variation in ownership patterns

- » Property size
- » Hunter density
- » Habitat condition
- » Fawn recruitment (number of fawns surviving to the fall)
- » Sex ratio (number of does per buck)

The variability in individual landowners' deer management goals creates a dynamic landscape in terms of deer numbers over even small distances.

INSIDE THE NUMBERS

There is no question that an increase in hunting opportunities combined with unlimited antlerless permits, implementation of antler point restrictions and localized hemorrhagic disease outbreaks have reduced deer numbers in several northern, central and western Missouri counties from peak population levels in the mid-2000s. Liberalization of harvest regulations on antlerless deer has helped to stabilize and even decrease deer numbers in many areas where significant damage and deer numbers were too high. As deer numbers have decreased and reach more acceptable levels, the continued availability of antlerless permits is concerning to hunters in some counties. A look inside the numbers reveals some important trends regarding the use of antlerless permits.

Despite the unlimited availability of antlerless permits, only 1 percent of archery hunters and 2 percent of firearms hunters harvest three or more deer. Of the 9,270 individuals harvesting deer on archery antlerless permits, 93 percent harvested two or fewer antlerless deer. Of the 65,026 individuals harvesting deer on firearms antlerless permits, 95 percent harvested two or fewer antlerless deer. While the vast majority of hunters are not utilizing these permits, limiting them would reduce landowners' ability to shoot the number of does appropriate to their specific management goals.

If we take a closer look at the harvest impacts of reducing antlerless permits from unlimited to one, we predict a 10–15 percent decrease in total antlerless harvest. If we went from unlimited antlerless to two antlerless permits, we might expect a 5–8 percent decrease in total antlerless harvest.

As we continue to investigate ways to better manage deer numbers, an additional category

The Department of Conservation sets antlerless deer limits on a county-by-county basis. Increased harvest pressure on does has contributed to reduced deer numbers in some locations and helped maintain a desired deer population in others.





of antlerless permits could provide a finer degree of control than what is currently provided by zero, one or unlimited antlerless permits. However, a reduction in the availability of antlerless permits does not guarantee that those permits will be used in the appropriate locations. Ultimately, landowners and hunters are the key to management of deer populations. They are the ones who control harvest and dictate local deer numbers.

PROPERTY SPECIFIC HARVEST RATES

The quantity of antlerless permits available helps the Department to manage deer numbers at the county level. However, landowners and hunters can do a great deal to maintain deer numbers at the local level. There are three simple guidelines for managing deer populations.

- » To reduce deer numbers—harvest more does than antlered bucks.
- » To maintain deer numbers—harvest equal numbers of does and antlered bucks.

- » To increase deer numbers—harvest very few does and mostly antlered bucks.

While these generalizations will get you headed in the right direction, more specific recommendations require the collection of data. There are three types of data that are most useful when determining how many does to harvest.

- » Harvest data
- » Observation data
- » Census data

HARVEST DATA

Harvest data is collected from every deer taken during the hunting season and any additional deer that are found dead throughout the year. It's important to document deer that have been found dead as hemorrhagic disease outbreaks and other causes of mortality can affect harvest rates in the years to follow.

Deer populations in most of rural Missouri are limited by harvest. Therefore, the number of deer taken during the hunting seasons affects

In 2010, a total of 507,068 individuals received some type of deer hunting permit. Of the individuals with a deer hunting permit, only 38 percent harvested a deer, 7 percent harvested two deer, and 3 percent harvested three or more deer.

the population size, both regionally and locally. While most Missouri counties have liberal bag limits for antlerless deer, hunting pressure and deer numbers on properties vary widely. This means that making deer harvest decisions for your property based solely on county deer regulations can produce unwanted results. Because harvest has such a significant effect on deer population size, harvest data can reveal a great deal about the local deer population and help make sound management decisions. However, harvest data must be collected carefully and consistently. It is important to collect the data from each deer harvested and in the same manner every time.

At a minimum you should record the date of harvest, sex and age of every deer harvested on your property. Making harvest recommendations usually requires harvest data from the previous two or three years. By comparing harvest and observational data over a number of years, you can evaluate the effectiveness of harvest recommendations in meeting management objectives.

OBSERVATION DATA

Collecting observation data is one of the easiest and most cost-effective methods for gathering information on the composition of a deer herd. When collected and analyzed appropriately, observational data can be extremely useful in determining several important deer herd population characteristics, such as relative deer abundance, fawn recruitment, age structure and sex ratio.

The only tools required are a pencil, paper and binoculars. The process can be as simple as recording the number of bucks, does and fawns seen and the length of time spent hunting.

Observation data can be collected at any time. The most important part is that it is collected at the same time from year to year so that you have consistency for annual comparisons. Collection of observation data during the archery season before the November firearms season can provide a good indicator for annual comparisons of deer numbers.

Actual deer abundance can't be determined from observation data. It can show population trends. Annual comparisons of the number of bucks and does sighted per hour, along with the number of fawns per doe, are good indicators of the trend in deer populations. This observational data serves as a measure of the success of your deer management.

CENSUS DATA

Obtaining accurate census data requires the ability to collect reliable estimates of deer density on your property. Many hunters use infrared-triggered digital trail cameras to scout and pattern bucks on their property. These types of trail cameras may be the best tool available to landowners for estimating important characteristics of the deer herd on their property, including deer density, age structure, sex ratio and fawn recruitment.

Conducting a trail camera survey is relatively simple. Many hunters already have established mineral/salt licks that deer use during the spring and summer months. These sites, or other areas that deer frequently use, are great places to conduct a formal survey. Some simple guidelines for a trail camera survey are:

- » One camera per 100 acres.
- » Place about 50 pounds of corn approximately 12–15 feet from each camera. (Be sure to remove any bait 10 days before the start of the archery deer season.)
- » Set cameras to take a photo every one to five minutes. (More frequent pictures do not result in better estimates.)
- » Run the survey for 10 consecutive days in August.
- » Once the 10-day survey period is complete, review the photos and count the number

The Department's deer management goal is to maintain deer population levels that provide adequate opportunities for hunters and people who enjoy watching deer, but low enough to minimize crop and landscape damage and deer-vehicle accidents.





of bucks, does and fawns. Make special note of the number of unique bucks you have photographed.

Research indicates that with a camera per 100 acres you will successfully capture 90 percent of the deer in your hunting area.

DETERMINING HARVEST RATES

When determining the number of does to harvest, one must take into consideration several critical factors:

- » Localized deer densities
- » Fawn recruitment (number of fawns surviving to the fall)
- » Sex ratio (number of does per buck)

These demographic characteristics can be generated from the trail camera survey described above. The size of the property you hunt and the amount of hunting pressure that occurs on the neighboring properties are also important considerations when determining doe harvest rates. Because many of us are not fortunate enough to manage large tracts of land (more than 1,000 acres), we must take into consideration what the neighbors are harvesting and adjust our expectations accordingly.

Proper collection of harvest and observa-

tion data can reveal trends in doe numbers and will serve as a guide to creating initial harvest recommendations. As you gather additional data and see changing population response to various doe harvest rates, specific harvest rates will be easier to determine. Small property managers may not obtain enough information to get meaningful results from low deer harvest numbers. One way to address the issue of limited data is to share information with neighboring properties through the formation of a deer management cooperative. Deer management cooperatives are simply neighboring landowners working together to reach common management goals. A better understanding of activities across the fence can ensure that better harvest decisions are made and increases the likelihood that everyone reaches their specific management goals.

As you go afield this fall in pursuit of Missouri's most popular game animal, go armed not only with your weapon of choice, but a deer harvest plan. One based on your specific management goals and guided by past harvests and observations. Remember to collect data along the way so that the plan can be refined in the years to come. ▲

Many hunters use trail cameras to scout and pattern bucks on their property. The information gathered will help serve as a guide to creating initial harvest recommendations.

Crowley's Ridge CA

Enjoy fall hunting, fishing, hiking and birding at this southeast Missouri conservation area.



IF YOU'RE LOOKING for fall hunting and fishing in southeast Missouri, try Crowley's Ridge Conservation Area (CA). Located in Stoddard County, the 1,878-acre area sits on Crowley's Ridge, a peninsula of rolling hills cutting through the otherwise flat plains of Missouri's Bootheel. Although it's one of MDC's 19 quail emphasis areas and is managed primarily for quail, rabbits and grassland birds, it offers a variety of outdoor recreation opportunities.

Hunters and wildlife enthusiasts will appreciate the area's diverse habitat management. Fields of ragweed, foxtail and other common annual plants provide cover for quail and turkey broods, and warm-season grasses serve as nesting cover for quail and habitat for rabbits. Doves, deer, turkey and other small game find forage in food plots planted with sunflowers, corn, beans and wheat.

Fall hunting is prime at Crowley's Ridge CA. Try the area for turkey, deer and small game. Firearms turkey hunting runs throughout the month of October, with the archery season for deer and turkey hunting running from Sept. 15 through Nov. 11 and then Nov. 23 through Jan. 15, 2012. Deer can be harvested using firearms Nov. 12–22.

Small-game hunters can pursue the area's population of rabbits, quail, dove and squirrels. Rabbits can be harvested from Oct. 1 through Feb. 15, 2012, quail from Nov. 1 to Jan. 15, dove until Nov. 9, and squirrels until Feb. 15. All small-game hunters must obtain an area daily hunting tag at one of the parking lots.

Aside from offering outstanding hunting, the area features two lakes and four ponds that are stocked annually with channel catfish, making for great fall fishing. If hiking and birding are your passions, try the grass access lanes and roads, and be sure to bring a pair of binoculars for exciting migratory bird watching.

After a day of hunting, fishing, hiking or birding, you can pitch a tent at the area's campsite. Camping is primitive, so come with potable water and be ready to pack out trash and waste.

To find Crowley's Ridge CA, travel 10 miles east of Puxico on Route PP then 1 mile south on County Road 237. Check the area's website (listed below) and bulletin boards at the parking lots for regulations and special notices.

—Bonnie Chasteen, photo by David Stonner

Recreation opportunities: Fishing, birding, camping and hunting for deer, turkey, doves, rabbits and squirrels

Unique features: Two lakes and four ponds annually stocked with channel catfish

For More Information

Call 573-290-5730 or visit mdc.mo.gov/a8025.





Hunting and Fishing Calendar

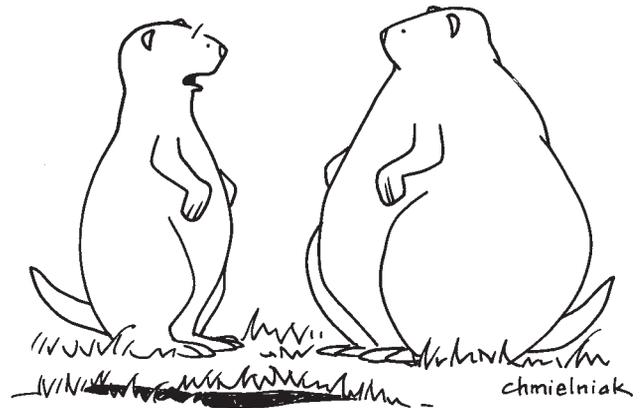
FISHING

	OPEN	CLOSE
Black Bass (certain Ozark streams, see the <i>Wildlife Code</i>)	5/28/11	2/29/12
impoundments and other streams year-round		
Bullfrogs and Green Frogs	Sunset	Midnight
	6/30/11	10/31/11
Nongame Fish Gigging	9/15/11	1/31/12
Trout Parks	3/01/11	10/31/11

HUNTING

	OPEN	CLOSE
Coyote	5/09/11	3/31/12
Crow	11/01/11	3/3/12
Deer		
Archery	9/15/11	11/11/11
	11/23/11	1/15/12
Firearms		
Urban Zones	10/07/11	10/10/11
Early Youth	11/05/11	11/06/11
November	11/12/11	11/22/11
Antlerless	11/23/11	12/04/11
Muzzleloader	12/17/11	12/27/11
Late Youth	1/07/12	1/08/12
Dove	9/01/11	11/09/11
Furbearers	11/15/11	1/31/12
Groundhog	5/09/11	12/15/11
Pheasant		
Youth (North Zone only)	10/29/11	10/30/11
North Zone	11/1/11	1/15/12
Southeast Zone	12/01/11	12/12/11
Quail	11/1/11	1/15/12
Youth	10/29/11	10/30/11
Rabbits	10/1/11	2/15/12
Rails (Sora and Virginia)	9/01/11	11/09/11
Squirrels	5/28/11	2/15/12
Turkey		
Archery	9/15/11	11/11/11
	11/23/11	1/15/12
Fall	10/01/11	10/31/11
Waterfowl	please see the <i>Waterfowl Hunting Digest</i> or see mdc.mo.gov/node/3830	
Wilson's (common) Snipe	9/01/11	12/16/11
Woodcock	10/15/11	11/28/11
TRAPPING	OPEN	CLOSE
Beavers & Nutria	11/15/11	3/31/12
Furbearers	11/15/11	1/31/12
Otters & Muskrats	11/15/11	2/20/12

For complete information about seasons, limits, methods and restrictions, consult the *Wildlife Code* or the current summaries of *Missouri Hunting and Trapping Regulations* and *Missouri Fishing Regulations*, *The Spring Turkey Hunting Regulations and Information*, the *Fall Deer and Turkey Hunting Regulations and Information*, the *Waterfowl Hunting Digest* and the *Migratory Bird Hunting Digest*. For more information visit mdc.mo.gov/node/130 or permit vendors.



"Do you think maybe you're getting a little too ready to hibernate?"

Contributors

HEATHER BODENDIECK has lived in Missouri since childhood. A full-time writer who loves the outdoors, she considers writing for the *Conservationist* the perfect blending of her two great joys in life. She lives in Eureka with her family and a houseful of pets.



BILL GRAHAM joined MDC in 2010 as a media specialist for the Kansas City and Northwest regions. He formerly worked for 25 years as a reporter and columnist for *The Kansas City Star*. A lifetime hunter, angler and camper, he is a native of Nevada, Mo. and now resides with his family near Platte City in Platte County.

LISA LACOMBE is the nature center manager at Burr Oak Woods Conservation Nature Center in Blue Springs. For her, there is nothing comparable to seeing that light shine in the eyes of a child when he or she discovers something new in nature. She spends her free time scuba diving, canoeing, caving and riding her bicycle.



JASON SUMNERS, a native of Benton County, is a deer biologist for MDC and oversees the state's deer management program. Jason resides in Columbia with his family. Whether he's hiking in the mountains, chasing whitetails, or crappie fishing, Jason enjoys spending time in the great outdoors with family and friends.

Youth Trapping Clinic

Join the staff of the Missouri Department of Conservation along with volunteers from the Missouri Trappers Association for this fun and exciting educational clinic. The clinic runs Oct. 22 and 23 on the Whetstone Creek Conservation Area near Williamsburg in Callaway County. Participants will learn basic trapping techniques including water sets, dry land sets, trapping equipment care and maintenance, skinning, fleshing and proper fur handling.

While under the guidance of experienced trappers, participants will set their own traps. There is no fee for this training, but pre-registration is required. Participants should bring snacks and drinks. Dinner will be served on Saturday evening and breakfast on Sunday. This program is open to youth ages 11 to 17 and their parent or adult mentor. For more details or to register, call 573-864-3559. For more information about hunting and trapping in Missouri, visit mdc.mo.gov/node/88.



AGENT NOTES

No MOre Trash! Keep the outdoors litter free.

FALL IS A great time to get outdoors and enjoy the spectacular colors of changing leaves. I especially like to view the colorful trees while doing a boat patrol. While I check hunters and fishers on the rivers and banks, I always take a minute to soak in the vibrant landscapes that surround me. Moments like these truly connect you with nature.

Unfortunately, my enjoyment of the fall colors is dampened when I look around the river dykes and banks and observe the accumulation of litter. Some of the trash is washed downstream to pile up on riverbanks after water levels recede. Other items are left or discarded on dykes until the rising river swallows them up.

To stop the river litter cycle, we all have to do our part.

When I'm on the water, I keep a large plastic container in my boat that has a locking top. I put my trash in it as well as trash I find in the river. I've seen fishers who put their trash in their boat's empty live well while on the water. I know hunters who place their litter in decoy bags or dismantled blinds when traveling to and from their river hunting spots. I've talked to riverbank campers who use all-weather bags to hold and take their trash with them. Responsible resource users always find a way to get their litter where it needs to go. The rewards are cleaner waterways and a great view of our natural resources, wherever you look!



Jeff Breuer is the conservation agent for Jefferson County. If you would like to contact the agent for your county, phone your regional conservation office listed on Page 3.





Subscribe online • mdc.mo.gov/node/9087 • Free to Missouri households



“I Am Conservation”

Cici Tompkins and her brother Charles Tompkins, both of St. Louis, hunt mushrooms at Meramec State Park. The pair has been hunting for two years and Cici searches for a variety of edible mushrooms including morels, chanterelles, chickens, hens and lobsters. “I like cooking. That is my main motivator; edible things. Although it’s still fun to find a variety and try to identify them even if they aren’t edible.” She has created recipes for chanterelle and garlic pizza as well as chanterelle lasagna. “They have much more flavor than store-bought, and you have the enjoyment of finding your own food. It’s a very accessible pas-time and anyone can do it.”—*Photo by David Stonner*